

## IN THE CLAIMS

Please amend the claims to read as follows:

### Listing of Claims

1-11. (Canceled).

12. (Currently Amended) A CDMA transmission apparatus comprising:

a spreading code generator that generates a  $b^{\text{th}}$  chip  $C(a,b)$  of an  $a^{\text{th}}$  spreading code by a following equation,

$$C(a,b) = e^{j(2\pi n/N)}$$

where  $e$  is a base of natural logarithm,  $N$  is a length of the spreading code,  $n=a \times b$ ,  $a=0 \sim N-1$ , and  $b=0 \sim N-1$ ; and

a spreader that spreads a transmission signal using the spreading code generated in the spreading code generator, wherein;

an inverse discrete Fourier transformer is used ~~applied to~~ constitute the spreading code generator and the spreader.

13. (Currently Amended) A CDMA transmission apparatus comprising:

a spreading code generator that generates a  $b^{\text{th}}$  chip  $C(a,b)$  of an  $a^{\text{th}}$  spreading code by a following equation,

$$C(a,b) = e^{j(2\pi n/N)}$$

where  $e$  is a base of natural logarithm,  $N$  is a length of the spreading code,  $n=a \times b$ ,  $a=0 \sim N-1$ , and  $b=0 \sim N-1$ ; and

a spreader that spreads a transmission signal using the spreading code generated in the spreading code generator, wherein;

a plurality of cascaded inverse discrete Fourier transformers are used ~~is applied~~ to constitute the spreading code generator and the spreader, and performs ~~perform~~ inverse discrete Fourier transform on the transmission signal hierarchically.

14. (Currently Amended) A CDMA reception apparatus comprising:

a spreading code generator that generates a  $b^{\text{th}}$  chip  $C(a,b)$  of an  $a^{\text{th}}$  spreading code by a following equation,

$$C^*(a,b) = e^{j(2\pi n/N)}$$

where  $e$  is a base of natural logarithm,  $N$  is a length of the spreading code,  $n=a \times b$ ,  $a=0 \sim N-1$ , and  $b=0 \sim N-1$ ; and

a despreader that despreads a received signal using the spreading code generated in the spreading code generator, wherein;

a discrete Fourier transformer is used ~~applied~~ to constitute the spreading code generator and the despreader.

15. (Currently Amended) A CDMA reception apparatus comprising:

a spreading code generator that generates a  $b^{\text{th}}$  chip  $C(a,b)$  of an  $a^{\text{th}}$  spreading code by a following equation,

$$C^*(a,b) = e^{-j(2\pi n/N)}$$

where  $e$  is a base of natural logarithm,  $N$  is a length of the spreading code,  $n=a \times b$ ,  $a=0 \sim N-1$ , and  $b=0 \sim N-1$ ; and

a despreader that despreads a received signal using the spreading code generated in the spreading code generator, wherein

a plurality of cascaded discrete Fourier transformers are used ~~is applied~~ to constitute the spreading code generator and the spreader, and ~~performs~~ perform discrete Fourier transform on the received signal hierarchically.